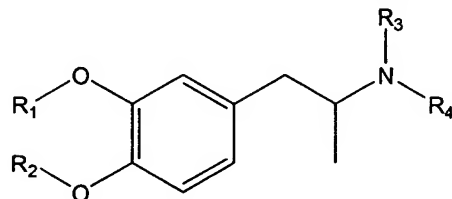


Claim Amendments

Please amend the claims as follows:

1. (currently amended) A compound of the formula:



Formula I

wherein: R^1 is H, lower alkyl, a protecting group, or is taken together with R^2 to form a ring,

R^2 is H, lower alkyl, a protecting group, $-(CH_2)_nSCH_2C(O)R^6$ or $-(CH_2)_nC(SO_2R^6)=CH_2$, or is taken together with R^1 to form a ring,

R^3 and R^4 are independently H or lower alkyl or a protecting group, or, when R^1 is taken together with R^2 to form a ring, at least one of R^3 or R^4 is $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$, or when R^1 is not taken together with R^2 to form a ring, ~~at least one of R^1 and R^2~~ is not H or lower alkyl or a protecting group,

R^5 is H, -OH, -SH, -O-lower alkyl, halogen, NH_2 , -succinimidyl, -maleimidyl, immunogenic carrier, or label,

R^6 is H, -OH, -SH, -O-lower alkyl, halogen, NH_2 , -succinimidyl, -maleimidyl, immunogenic carrier, or label, and

n is an integer from 1 to 5,

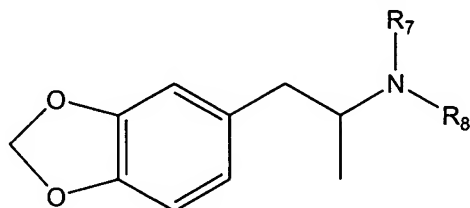
and including acid salts thereof.

2. (original) A compound according to Claim 1 wherein said immunogenic carrier is a poly(amino acid).

3. (original) A compound according to Claim 2 wherein said poly(amino acid) is a

protein.

4. (original) Antibodies raised against the compound of Claim 3.
5. (original) A compound according to Claim 1 wherein n is 1.
6. (currently amended) A compound according to Claim 1 wherein said label is an enzyme label, a luminescent label ~~luminescer~~, or a radioisotope label.
7. (currently amended) A compound of the formula:



Formula II

wherein: R^7 is H, lower alkyl, a protecting group, $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$,
 R^8 is H, lower alkyl, a protecting group, $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$,
 R^5 is H, -OH, -SH, -O-lower alkyl, halogen, NH_2 , immunogenic carrier, -succinimidyl, -maleimidyl, or label, and
 n is an integer from 1 to 5,
 with the proviso that at least one of R^7 and R^8 are not H or lower alkyl, ~~and~~
 and including the acid salts thereof.

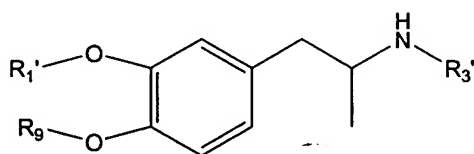
8. (currently amended) A compound according to Claim 7 wherein said immunogenic carrier ~~is a protein~~ is selected from the group consisting of KLH, BSA, BGG, and ovalbumin.
9. (original) Antibodies raised against the compound of Claim 8.

10. (original) A compound according to Claim 7 wherein n is 1.

11. (original) A compound according to Claim 6 wherein R⁷ is H or lower alkyl.

12. (currently amended) A compound according to Claim 7 wherein said label is an enzyme label, a luminescent label ~~luminescer~~, or a radioisotope label.

13. (original) A compound of the formula:



wherein: R^{3'} is H, methyl or ethyl or a protecting group,

R^{1'} is H or lower alkyl or a protecting group,

R⁹ is a protecting group, -(CH₂)_nSCH₂C(O)R⁶ or -(CH₂)_nC(SO₂R⁶)=CH₂, R⁶ is H, -OH, -SH, -O-lower alkyl, halogen, NH₂, immunogenic carrier, succinimidyl, -maleimidyl, or label, and

n is an integer from 1 to 5,

and including acid salts thereof.

14. (original) A compound according to Claim 13 wherein said protein is selected from the group consisting of KLH, BSA, BGG, and ovalbumin.

15. (original) Antibodies raised against the compound of Claim 14.

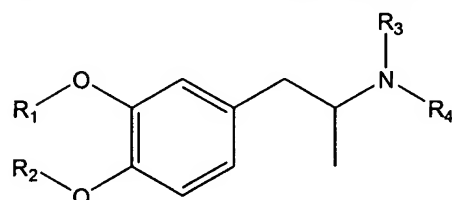
16. (original) A compound according to Claim 13 wherein n is 1.

17. (currently amended) A compound according to Claim 13 wherein said label is an enzyme label, a luminescent label ~~luminescer~~, or a radioisotope label.

18. (currently amended) A method for determining a compound selected from the group

consisting of 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxy-methamphetamine (HMMA), said method comprising:

- (a) providing in combination in a medium:
 - (i) a sample suspected of containing said compound and
 - (ii) an antibody raised against a compound of the formula:



wherein: R^1 is H, lower alkyl, a protecting group, or is taken together with R^2 to form a ring,

R^2 is H, lower alkyl, a protecting group, $-(CH_2)_nSCH_2C(O)R^6$ or $-(CH_2)_nC(SO_2R^6)=CH_2$, or is taken together with R^1 to form a ring,

R^3 and R^4 are independently H or lower alkyl or a protecting group, or, when R^1 is taken together with R^2 to form a ring, at least one of R^3 or R^4 is $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$, or when R^1 is not taken together with R^2 to form a ring, ~~at least one of R^1 and R^2~~ is not H or lower alkyl or a protecting group,

R^5 is an immunogenic carrier,

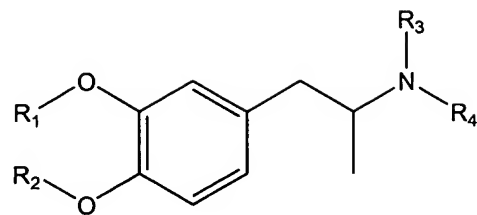
R^6 is an immunogenic carrier, and

n is an integer from 1 to 5, and

- (b) examining said medium for the presence a complex comprising said compound and said antibody, the presence thereof indicating the presence of said compound in said sample.

19. (currently amended) A method according to Claim 18 wherein said combination further comprises:

- (iii) a label conjugate of the formula:



wherein: R^1 is H, lower alkyl, a protecting group, or is taken together with R^2 to form a ring,

R^2 is H, lower alkyl, a protecting group, $-(CH_2)_nSCH_2C(O)R^6$ or $-(CH_2)_nC(SO_2R^6)=CH_2$, or is taken together with R^1 to form a ring,

R^3 and R^4 are independently H or lower alkyl or a protecting group, or, when R^1 is taken together with R^2 to form a ring, at least one of R^3 or R^4 is $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$, or when R^1 is not taken together with R^2 to form a ring, ~~at least one of R^1 and R^2~~ is not H or lower alkyl or a protecting group,

R^5 is a label,

R^6 is a label, and

n is an integer from 1 to 5, and

said examining comprises measuring signal from said label, the amount thereof being related to the presence of said compound in said sample.

20. (original) A method according to Claim 19 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

21. (original) A method according to Claim 18 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium.

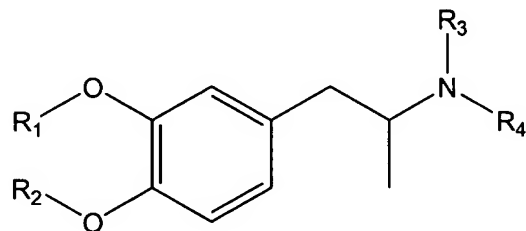
22. (original) A method according to Claim 18 wherein said protein is selected from the group consisting of KLH, BSA, BGG and ovalbumin.

23. (original) A method according to Claim 18 wherein n is 1.

24. (currently amended) A method according to Claim 19 wherein said label is an enzyme label, a luminescent label ~~luminescer~~, or a radioisotope label.

25. (currently amended) A kit for determining a compound selected from the group consisting of 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxy-methamphetamine (HMMA), said kit comprising:

(a) an antibody raised against a compound of the formula:



wherein: R^1 is H, lower alkyl, a protecting group, or is taken together with R^2 to form a ring,

R^2 is H, lower alkyl, a protecting group, $-(CH_2)_nSCH_2C(O)R^6$ or $-(CH_2)_nC(SO_2R^6)=CH_2$, or is taken together with R^1 to form a ring,

R^3 and R^4 are independently H or lower alkyl or a protecting group, or, when R^1 is taken together with R^2 to form a ring, at least one of R^3 or R^4 is $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$, or when R^1 is not taken together with R^2 to form a ring, ~~at least one of R^1 and R^2~~ is not H or lower alkyl or a protecting group,

R^5 is an immunogenic carrier,

R^6 is an immunogenic carrier, and

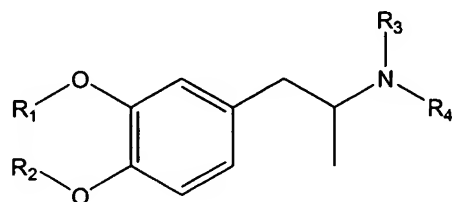
n is an integer from 1 to 5, and

(b) ancillary reagents for determining said compound.

26. (currently amended) A kit for determining a compound selected from the group consisting of 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxy-

methamphetamine (HMMA), said kit comprising:

- (a) an antibody for said compound,
- (b) a label conjugate of the formula:



Formula V

wherein: R^1 is H, lower alkyl, a protecting group, or is taken together with R^2 to form a ring,

R^2 is H, lower alkyl, a protecting group, $-(CH_2)_nSCH_2C(O)R^6$ or $-(CH_2)_nC(SO_2R^6)=CH_2$, or is taken together with R^1 to form a ring,

R^3 and R^4 are independently H or lower alkyl or a protecting group, or, when R^1 is taken together with R^2 to form a ring, at least one of R^3 or R^4 is $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$, or $-(CH_2)_nC(SO_2R^5)=CH_2$, or when R^1 is not taken together with R^2 to form a ring, ~~at least one of R^1 and R^2~~ is not H or lower alkyl or a protecting group,

R^5 is a label,

R^6 is a label, and

n is an integer from 1 to 5, and

- (c) ancillary reagents for determining said compound.

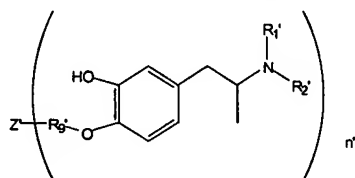
27. (original) A kit according to Claim 25 wherein said protein is selected from the group consisting of KLH, BSA, BGG and ovalbumin.

28. (original) A kit according to Claim 25 wherein n is 1.

29. (currently amended) A kit according to Claim 26 wherein said label is an enzyme label, a luminescent label ~~luminescer~~, or a radioisotope label.

30. (original) A method for determining amphetamine and/or methamphetamine and/or methylenedioxyamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyamphetamine, said method comprising:

- (a) providing in combination in a medium:
 - (i) said sample,
 - (ii) an antibody for methylenedioxyamphetamine, and/or
 - (iii) an antibody for methylenedioxymethamphetamine, and/or
 - (iv) an antibody for methylenedioxyamphetamine, and
 - (v) a compound of the formula:



wherein:

$\text{R}^{1'}$ is H,

$\text{R}^{2'}$ is H, or methyl or ethyl,

$\text{R}^{9'}$ is $-(\text{CH}_2)_n\text{SCH}_2\text{C}(\text{O})\text{R}^{6'}$ or $-(\text{CH}_2)_n\text{C}(\text{SO}_2\text{R}^{6'})=\text{CH}_2$,

$\text{R}^{6'}$ is Z' , which is an enzyme,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500;

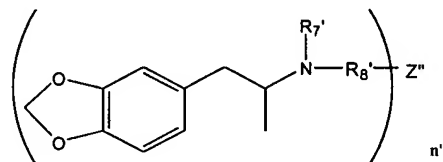
and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyamphetamine in said sample.

31. (original) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or

methylenedioxyethamphetamine, said method comprising:

- (a) providing in combination in a medium:
 - (i) said sample,
 - (ii) an antibody for methylenedioxyamphetamine, and/or
 - (iii) an antibody for methylenedioxymethamphetamine, and/or
 - (iv) an antibody for methylenedioxyethamphetamine, and
 - (v) a compound of the formula:



wherein:

- $\text{R}^{7'}$ is H, or methyl, or ethyl,
- $\text{R}^{8'}$ is $-\text{C}(\text{O})(\text{CH}_2)_n\text{R}^{5'}$, $-\text{C}(\text{O})(\text{CH}_2)_n\text{NHC}(\text{O})\text{R}^{5'}$, $-\text{C}(\text{O})(\text{CH}_2)_n\text{NHC}(\text{O})(\text{CH}_2)_n\text{SR}^{5'}$, $-(\text{CH}_2)_n\text{C}(\text{SO}_2\text{R}^{5'})=\text{CH}_2$, $-(\text{CH}_2)_n\text{SCH}_2\text{C}(\text{O})\text{R}^{5'}$ or $-(\text{CH}_2)_n\text{C}(\text{SO}_2\text{R}^{5'})=\text{CH}_2$,
- $\text{R}^{5'}$ is Z'' , which is an enzyme,
- n'' is an integer between 1 and the molecular weight of said enzyme divided by about 500; and

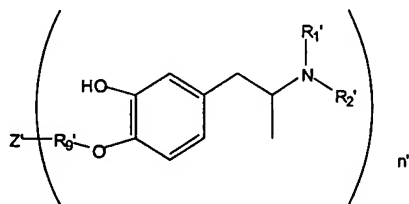
(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

32. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

- (a) providing in combination in a medium:
 - (i) said sample,

(ii) a conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog,

(i) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

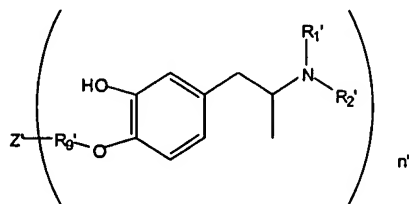
$R^{2'}$ is H,

$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

$R^{6'}$ is Z' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n' is an integer between 1 and the molecular weight of said protein ~~an~~ immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is methyl,

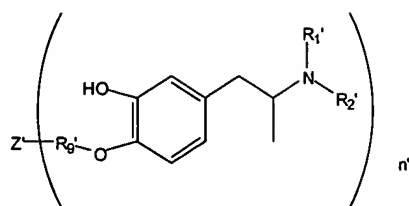
$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

$R^{6'}$ is Z' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxyethamphetamine, said antibody being

raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is ethyl,

$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

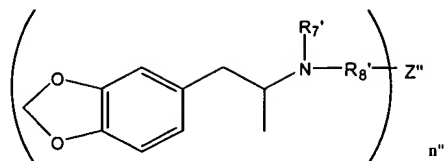
$R^{6'}$ is Z' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

33. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine, said method comprising:

- (a) providing in combination in a medium:
 - (i) said sample,
 - (ii) a conjugate of an enzyme and an methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog,
 - (i) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

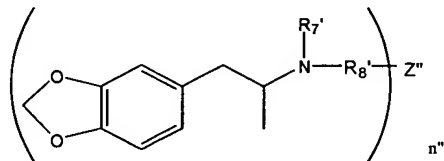
$R^{7'}$ is H,

$R^{8'}$ is $-C(O)(CH_2)_nR^5$, $-C(O)(CH_2)_nNHC(O)R^5$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^5)=CH_2$, $-(CH_2)_nSCH_2C(O)R^5$ or $-(CH_2)_nC(SO_2R^5)=CH_2$,

R^5 is Z'' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

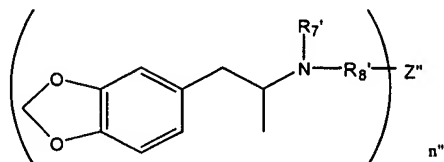
$R^{7'}$ is methyl,

$R^{8'}$ is $-C(O)(CH_2)_nR^{5'}$, $-C(O)(CH_2)_nNHC(O)R^{5'}$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^{5'}$, $-(CH_2)_nC(SO_2R^{5'})=CH_2$, $-(CH_2)_nSCH_2C(O)R^{5'}$ or $-(CH_2)_nC(SO_2R^{5'})=CH_2$,

$R^{5'}$ is Z'' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxyethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{7'}$ is ethyl,

$R^{8'}$ is $-C(O)(CH_2)_nR^{5'}$, $-C(O)(CH_2)_nNHC(O)R^{5'}$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^{5'})=CH_2$, $-(CH_2)_nSCH_2C(O)R^{5'}$ or $-(CH_2)_nC(SO_2R^{5'})=CH_2$,

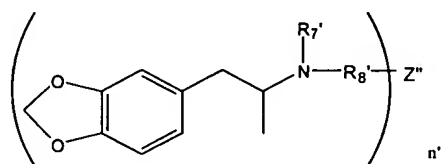
$R^{5'}$ is Z'' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine and/or methylenedioxyethamphetamine in said sample.

34. (original) A kit comprising in packaged combination:

- (i) an antibody for methylenedioxyamphetamine, and/or
- (ii) an antibody for methylenedioxymethamphetamine, and/or
- (iii) an antibody for methylenedioxyethamphetamine, and
- (iv) a compound of the formula:



wherein:

$R^{7'}$ is H, or methyl, or ethyl,

$R^{8'}$ is $-C(O)(CH_2)_nR^{5'}$, $-C(O)(CH_2)_nNHC(O)R^{5'}$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^5$, $-(CH_2)_nC(SO_2R^{5'})=CH_2$, $-(CH_2)_nSCH_2C(O)R^{5'}$ or $-(CH_2)_nC(SO_2R^{5'})=CH_2$,

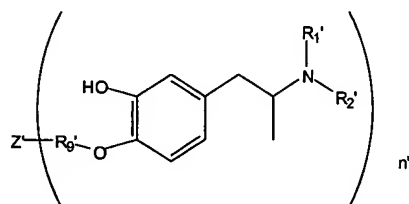
$R^{5'}$ is Z'' , which is an enzyme,

n is an integer between 1 and the molecular weight of said enzyme divided by about 500.

35. (currently amended) A kit comprising in packaged combination:

- (i) an antibody for methylenedioxyamphetamine,

- (ii) an antibody for methylenedioxyamphetamine, and/or
- (iii) an antibody for methylenedioxyethamphetamine, and
- (iv) a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H, or methyl or ethyl,

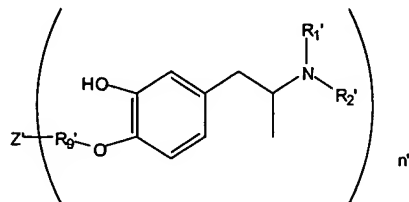
$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

$R^{6'}$ is Z' , which is an enzyme ~~immunogenic protein or a non poly(amino acid)~~
~~immunogenic carrier~~,

n' is an integer between 1 and the molecular weight of said enzyme ~~immunogenic protein~~
~~or said immunogenic carrier~~ divided by about 500.

36. (currently amended) A kit comprising in packaged combination:

- (i) a conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyamphetamine analog, and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog, and
- (ii) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H,

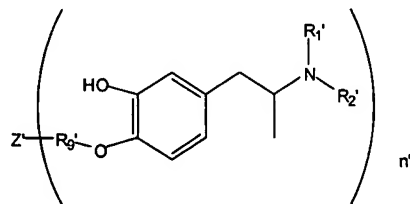
$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

$R^{6'}$ is Z' , which is a protein ~~an immunogenic carrier protein~~ or a non-poly(amino acid)

immunogenic carrier,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

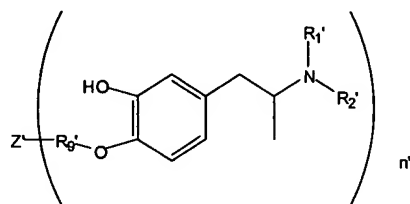
$R^{2'}$ is methyl,

$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

$R^{6'}$ is Z' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxyethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is ethyl,

$R^{9'}$ is $-(CH_2)_nSCH_2C(O)R^{6'}$ or $-(CH_2)_nC(SO_2R^{6'})=CH_2$,

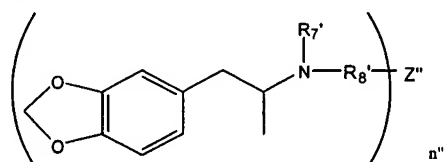
$R^{6'}$ is Z' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500.

37. (currently amended) A kit comprising in packaged combination:

(i) a conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog, and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog, and

(ii) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

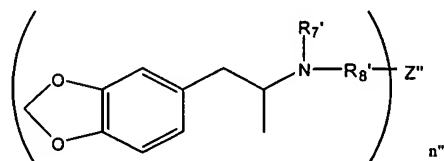
$R^{7'}$ is H,

$R^{8'}$ is $-C(O)(CH_2)_nR^{5'}$, $-C(O)(CH_2)_nNHC(O)R^{5'}$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^{5'}$, $-(CH_2)_nC(SO_2R^{5'})=CH_2$, $-(CH_2)_nSCH_2C(O)R^{5'}$ or $-(CH_2)_nC(SO_2R^{5'})=CH_2$,

$R^{5'}$ is Z'' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{7'}$ is methyl,

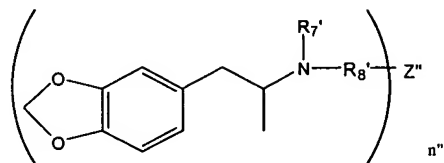
$R^{8'}$ is $-C(O)(CH_2)_nR^{5'}$, $-C(O)(CH_2)_nNHC(O)R^{5'}$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^{5'}$, $-(CH_2)_nC(SO_2R^{5'})=CH_2$, $-(CH_2)_nSCH_2C(O)R^{5'}$ or $-(CH_2)_nC(SO_2R^{5'})=CH_2$,

$R^{5'}$ is Z'' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxyethamphetamine, said antibody being

raised against a compound of the formula:



wherein:

$R^{7'}$ is ethyl,

$R^{8'}$ is $-C(O)(CH_2)_nR^{5'}$, $-C(O)(CH_2)_nNHC(O)R^{5'}$, $-C(O)(CH_2)_nNHC(O)(CH_2)_nSR^{5'}$, $-(CH_2)_nC(SO_2R^{5'})=CH_2$, $-(CH_2)_nSCH_2C(O)R^{5'}$ or $-(CH_2)_nC(SO_2R^{5'})=CH_2$,

$R^{5'}$ is Z'' , which is a protein ~~an~~ immunogenic carrier ~~protein~~ or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said protein immunogenic carrier ~~protein~~ or said non-poly(amino acid) immunogenic carrier divided by about 500.